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| 10/769,971 | 02/02/2004 | Benny Madsen | 11602.00.0012 | 9127 |

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| EXAMINER |
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| ART UNIT | PAPER NUMBER |
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2138

DATE MAILED: 03/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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|------------------------------|-------------------------------|-------------------------------|--|
| Office Action Summary | Application No. 10/769,971 | Applicant(s) MADSEN ET AL. | |
| | Examiner Saqib J. Siddiqui | Art Unit 2138 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 June 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Oath/Declaration

The Oath filed August 23, 2004 complies with all the requirements set forth in MPEP 602 and therefore is accepted.

Drawings

The filed drawings are accepted.

Specification

The contents of the filed specification are accepted.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that

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the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary.

Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishida et al. US Pat no. 4,541,091.

As per claim 1:

Nishida et al. substantially teaches a method for generating a reference transmission signal for use in testing a communications system (Figure 4), comprising capturing a data packet transmission signal containing a plurality of reference data (Figure 4 # 25); digitizing said data packet transmission signal (Figure 4 # 26); retrieving at least a selected portion of said plurality of reference data from said digitized data packet transmission signal to produce a plurality of retrieved data (Figure 4, #27-31, column 5, lines 25-41); modulating a carrier signal with said plurality of retrieved data to produce a digital transmission signal (Figure 4 # 32, column 5, lines 35-42); and storing said digital transmission signal (Figure 4 # 28 & 38).

Nishida et al. discloses the claimed invention except for the location of the storing device is not after the modulator. It would have been obvious to one having ordinary skill in the art at the time the invention was made to add the

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“RAM” (Figure 4 # 28) after the “MODULATOR” (Figure 4 # 32), to store the modulated signal for reference in future error correction procedure, since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.

As per claim 2:

Nishida et al. teaches the method of claim 1 as rejected above, wherein said capturing a data packet transmission signal containing a plurality of reference data comprises receiving said data packet transmission signal as an analog signal (column 5, lines 25-30).

As per claim 3:

Nishida et al. teaches the method of claim 1 as rejected above, wherein said capturing a data packet transmission signal containing a plurality of reference data comprises receiving said data packet transmission signal as a wireless signal (Figure 4, # 33).

As per claim 4:

Nishida et al. teaches the method of claim 1 as rejected above, wherein said capturing a data packet transmission signal containing a plurality of reference data comprises receiving said data packet transmission signal as a wired signal (Figure 4, # 26).

As per claim 5:

Nishida et al. teaches the method of claim 1 as rejected above, wherein said retrieving at least a selected portion of said plurality of reference data from said digitized data packet transmission signal to produce a plurality of retrieved

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data comprises demodulating (Figure 4 # 34, column 5, lines 44-67) at least a selected portion of said digitized data packet transmission signal to produce a plurality of demodulated data.

As per claim 6:

Nishida et al. teaches the method of claim 1 as rejected above, wherein said retrieving at least a selected portion of said plurality of reference data from said digitized data packet transmission signal to produce a plurality of retrieved data comprises decoding at least a selected portion of said digitized data packet transmission signal to produce a plurality of decoded data (Figure 4 # 43, column 10, lines 5-23).

As per claim 7:

Nishida et al. teaches the method of claim 1 as rejected above, wherein said modulating a carrier signal with said plurality of retrieved data to produce a digital transmission signal comprises encoding said carrier signal with said plurality of retrieved data (column 5, lines 34-40).

As per claim 8:

Nishida et al. teaches the method of claim 1 as rejected above, wherein said storing said digital transmission signal comprises storing said digital transmission signal in memory (Figure 4, "RAM").

As per claim 9:

Nishida et al. teaches the method of claim 1 as rejected above, further comprising modifying one or more selected bits of said plurality of retrieved data

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prior to said modulating a carrier signal with said plurality of retrieved data to produce a digital transmission signal (column 6, lines 5-15).

As per claim 10:

Nishida et al. teaches the method of claim 1 as rejected above, further comprising: retrieving said stored digital transmission signal (column 6, lines 43-57); and frequency up-converting said retrieved digital transmission signal to produce said reference transmission signal (column 6, lines 57-68).

As per claim 11:

Nishida teaches the method of claim 10 as rejected above, further comprising modifying one or more selected bits of said plurality of retrieved data prior to said modulating a carrier signal with said plurality of retrieved data to produce a digital transmission signal (Figure 4 # 34, column 6, lines 5-15).

As per claims 12-15:

These claims are directed to a method of the system of Claims 1-11. Nishida et al. as stated above, teach the system as set forth in Claims 1-11. Therefore, Nishida et al. also teach, either alone or in combination as stated above, the apparatus as set forth in claims 12-15.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Claims 1 & 12 are rejected under 35 U.S.C. 102(e) as being anticipated by Lovell et al. US Pat no. 6,831,945 B1.

As per claims 1 & 12:

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Lovell et al. substantially teaches the method and apparatus for generating a reference transmission signal for use in testing a communications system (Figure 4), comprising capturing a data packet transmission signal containing a plurality of reference data (Abstract, lines 1-3); digitizing said data packet transmission signal (Figure 4 # 3); retrieving at least a selected portion of said plurality of reference data from said digitized data packet transmission signal to produce a plurality of retrieved data (Abstract, lines 7-13); modulating a carrier signal with said plurality of retrieved data to produce a digital transmission signal (Figure 4 # 5); and storing said digital transmission signal (Figure 4 # 7 & 10).

Lovell et al. discloses the claimed invention except for the location of the modulator. It would have been obvious to one having ordinary skill in the art at the time the invention was made to change the location of the modulator, since it has been held that rearranging parts of an invention involves only routine skill in the art. In *re Japikse*, 86 USPQ 70.

Related Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Additional pertinent prior arts, US Pat no. (4703433, 6175939 B1, US 4507740 A, & US 4704734 A) mention the same method for generating a reference transmission signal using an A/D converter are included herein for Applicant's review.

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Conclusion

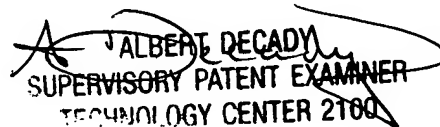
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Saqib J. Siddiqui whose telephone number is (571) 272-6553. The examiner can normally be reached on 8:00 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert Decady can be reached on (571) 272-3819. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Saqib Siddiqui
Art Unit 2138
03/13/2006



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